

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph corresponding to Example 17 (page 28, lines 12-31 to page 29, lines 1-6) with the following paragraph as amended:

Example 17

Lentivirus construct expressing *E. coli* purine nucleoside phosphorylase

Lentivirus construction is performed according to the method of Trono *et al.* (<http://www.tronolab.unige.ch/LV'S%20KITCHENPage.htm>) (23, 24). In order to establish a lentivirus capable of PNP expression, the gene is PCR amplified using primers 5' ggatccaccatggctacccacacattaatg 3' (BamHI site and ATG underlined) (SEQUENCE ID No. 1) and 5' cctcgagtcactctttatcgcccagcag 3' (XhoI site underlined) (SEQUENCE ID No. 2). The resulting product is subcloned into Zero-Blunt (Invitrogen). Following digestion with BamHI and XhoI, the PNP gene is cloned to replace the luciferase gene in the pHR'CMVLuc W Sin-18 lentivirus vector. Correct insertion is verified by sequencing the entire PNP gene and the ligation sites, and by transfecting the resulting plasmid (which encodes a CMV promoter driven PNP gene) into 293T cells and verifying the expression of *E. coli* PNP enzymatic activity by HPLC *in vitro* (see above). The plasmid is then transfected into 293T cells together with two packaging plasmid vectors, pMD.G (envelope) and pCMVDR8.91 (packaging construct). Replication deficient viral particles encoding *E. coli* PNP are collected from tissue culture supernatant following transfection and lentivirus stock concentrated by sucrose cushion centrifugation. The titer of virus stock is estimated by performing parallel EGFP (enhanced green fluorescent protein)-lentivirus production engineered in an otherwise identical vector context using the same procedures, and then by estimating the number of green cells when infected with the EGFP virus stock. The titer of lentivirus reaches 1×10^9 infectious particles/ml following concentration. A luciferase expressing lentivirus construct is made according to similar procedures.